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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,901	03/29/2004	Ueli Breitschmid	2360-0406P	1090

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EXAMINER
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CHIN, RANDALL E

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/810,901

Applicant(s)

BREITSCHMID, UELI

Examiner

Randall Chin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,9,10 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,9,10 and 14-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 6, 9, 10 and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0 800 781 (hereinafter EPO '781).

EPO '781 discloses an interdental brush comprising two wire sections formed of austenitic steel and having a diameter of 0.3 mm or less (p. 3, lines 21-22 and 27-28, for example), and filaments retained between the two wire sections which are twisted with one another (Figs. 1-3; p. 2, lines 5-8), wherein the austenitic steel includes less than 0.05% nickel by weight. Specifically, EPO '781 teaches in "first," "second," and "third" aspects of the invention (p. 2, line 54 to p. 3, line 8) examples where nickel is not even included in the brush wire thus meeting the broad claim limitation "less than 0.05% nickel by weight." Here, EPO '781 explicitly recites that the brush wire contains "at least" iron, chromium, manganese and nitrogen (emphasis added) and the nickel amount would be 0 wt% (i.e., zero). Therefore, nickel is never required in the composition for the brush wire. Note also, in subsequent "aspects" of the invention (e.g., "fourth," "fifth," etc. on p. 3, lines 9-51), nickel is included/required in the brush wire

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composition. Claims 1-3 of EPO '781 similarly teaches the aforementioned brush wire which is void of any nickel material.

Alternatively with respect to claim 1, EPO '781 teaches specifically in a "sixth" aspect of the invention that the brush wire contains nickel "less than 1.0 wt%" (p. 3, lines 20-25, for example) which is deemed to anticipate the recited limitation in claim 1 of "less than 0.05% nickel by weight" with "sufficient specificity" (see MPEP 2131.03 II.)

As for claim 2, EPO '781 teaches a wire diameter of 0.15 to 0.35 mm (p. 3, lines 27-28) and which meets the limitation of the two wire sections having a diameter of more than 0.15 mm.

As for claims 3, 4, 9 and 10, EPO '781 is already concerned with providing adequate tensile strength to avoid breakage (p. 2, lines 38-40 and p. 3, lines 56-58) where the wire has tensile strength of not less than 40kfg/mm squared which meets the claimed limitation of 1000 or 1200 N/mm squared.

As for claim 6, 14, 15 and 16 reciting that the wire sections are stretched or drawn out, such a recitation appears to be drawn to method step not germane to patentability in apparatus claims.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 6, 9, 10 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over EPO '781.

As already disclosed above, EPO '781 discloses an interdental brush comprising two wire sections formed of austenitic steel and having a diameter of 0.3 mm or less (p. 3, lines 21-22 and 27-28, for example), and filaments retained between the two wire sections which are twisted with one another (Figs. 1-3; p. 2, lines 5-8).

Even assuming *arguendo* that the EPO '781 disclosure of "nickel content is less than 1.0 wt%" fails to teach with "sufficient specificity" (in accordance with MPEP 2131.03 II.) that the austenitic steel includes "less than 0.05% nickel by weight", EPO '781 specifically teaches in "first," "second," and "third" aspects of the invention (p. 2, line 54 to p. 3, line 8) examples where nickel is **not even included** in the brush wire. EPO '781 explicitly recites that the brush wire contains "**at least**" iron, chromium, manganese and nitrogen (emphasis added) and the nickel amount would be 0 wt% (i.e., zero). Therefore, **nickel is never required** in the composition for the brush wire. Note also, in subsequent "aspects" of the invention (e.g., "fourth," "fifth," etc. on p. 3, lines 9-51), **nickel is included/required** in the brush wire composition. Claims 1-3 of EPO '781 similarly teaches the aforementioned brush wire which is **void of any nickel material**. Therefore, it would have been obvious to one of ordinary skill in the art to have modified EPO '781 by providing an amount of nickel in the brush wire **anywhere** from 0 wt% (i.e., zero) **all the way up to** 1.0 wt % (since EPO '781 already explicitly teaches nickel in an amount "less than 1.0 wt%" at p. 3, lines 20-25, for example, and also teaches examples where nickel is **not even included** in the brush wire composition at p. 2, line

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54 to p. 3, line 8 and therefore, 0.05% nickel by weight is included or encompassed by this range) in order to provide optimal characteristics for the brush wire in terms of tensile strength, stability, prolonged life and usage, nontoxic features, etc. This would include the specific value of 0.05% nickel.

Further, absent any crucial unexpected results or criticality at the **specific value** of "0.05%," such a claimed value is met by EPO '781 as just explained. It should be noted that Applicant's specification on p. 2, lines 16-27 recites that "[u]sing nickel-free wire, in addition, increases the biocompatibility of the brush, without any protective coatings being necessary." However, such a recitation is not deemed an unexpected result since there is no determinable standard or measure for what "increasing the biocompatibility of the brush" constitutes and therefore is of no patentable significance. The specification is devoid of any significant unexpected result of utilizing the **specific value of "0.05%" nickel**.

As for claim 2, EPO '781 teaches a wire diameter of 0.15 to 0.35 mm (p. 3, lines 27-28) and which meets the limitation of the two wire sections having a diameter of more than 0.15 mm.

As for claims 3, 4, 9 and 10, EPO '781 is already concerned with providing adequate tensile strength to avoid breakage (p. 2, lines 38-40 and p. 3, lines 56-58) where the wire has tensile strength of not less than 40kfg/mm squared which meets the claimed limitation of 1000 or 1200 N/mm squared.

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As for claim 6, 14, 15 and 16 reciting that the wire sections are stretched or drawn out, such a recitation appears to be drawn to method step not germane to patentability in apparatus claims.

### ***Conclusion***

5. Applicant's arguments pertaining to EPO '781 are deemed adequately addressed and explained by the above art rejections. Applicant's amendment changing "nickel-free or low-nickel" to "less than 0.05% nickel by weight" for the steel in claim 1 necessitated the new grounds of rejection presented in this Office action.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randall Chin whose telephone number is (571) 272-

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1270. The examiner can normally be reached on Monday through Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Randall Chin  
Primary Examiner  
Art Unit 1744